University of Washington

ARBORETUM BULLETIN

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Concerning this issue . . .

For those who may be wondering about the fate of Volume 46, Number 4, Winter 1983, we are proud to announce that it is due to emerge shortly in all its glory as the latest Ten-Year Index.

The present issue is chock full of articles, news, and doings. Timely for the summer gardener are two articles on weeds. Read about the hazels, just now producing ripe nuts in the city. The Japanese Garden and the tea ceremony are featured, while George Schenk and Leslie Norton each share with us a reminiscence. Bookwise, we have an article on the Arboretum collections, and reviews of two of Graham Stuart Thomas' volumes.

Enjoy the rest of summer!

SUSAN LIBONATI-BARNES

Everyone Invited—CUH Open House

On Friday, September 28, the Center for Urban Horticulture will host an all-day Open House to celebrate the opening of its new facilities at Union Bay (3501-NE 41st St.). Center faculty, staff and graduate students will be on hand to show visitors around the headquarters building, occupied since April, and the newly-completed conference hall, both decorated for the occasion by Seattle landscape designer R. David Adams. Laboratories, classrooms, meeting rooms, the Elisabeth C. Miller Horticultural Library, and the Otis Douglas Hyde Herbarium of Horticultural Plants will be on display. All friends of horticulture are cordially invited to stop by the Center during the day (9-4:30) for a visit and refreshments.

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ARBORETUM BULLETIN

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COVER

Sunning turtles on the rock (behind the bed of hostas)
guard the passage to the reflecting lantern.
Beyond is Turtle Island with its angular pines.

Photo: Susan K. Godfrey

....Let them be left,
O let them be left, Wilderness and Wet,
Long live the weeds and the wildness yet.
G.M. Hopkins

Common (Un-) Favorites— Portraits of Local Weeds

*JOHN BOLIVAR**

Weeds: What?

Ubiquitous invaders of human habitat, weeds are familiar to everyone. They occupy disturbed sites ranging from alleys to irrigation ditches. Some weeds are shrubby like blackberry or arborescent like alder (regarded as a pest on managed timber land). But most weeds are small, herbaceous, short-lived plants. Weeds are considered to be of comparatively recent evolutionary origin, for a large percentage of them are members of advanced plant families: asters (*Compositae*), grasses (*Gramineae*), mustards (*Cruciferae*) and mints (*Labiateae*). Although the flowering plants account for many weeds, the lower plants are by no means excluded. Anyone who has tried to eradicate the seemingly fragile mosses or the feathery horsetails from a lawn or garden can attest to this.

What exactly is a weed? In reference to a weedy alga (*Codium*), Ramos (1971) gives my favorite definition: "a plant having a demonstrated propensity for vexation." A plant becomes a weed as a result of its location rather than because of its genus and species. A thistle may be a farmer's bane or a hiker's delight. But certain plants are also of a weedy character. There have always been disturbed environments resulting from natural perturbations such as fires, earthquakes and glaciers, and from localized disruptions like animal wallows. The plants able to inhabit disturbed areas or to colonize on the heels of retreating glaciers or fires were undoubtedly of this character. Thus the quality of weediness precedes the arrival of people on the scene, but the weed, *per se*, does not. The link between weeds and humanity is very close; weeds are our living green footsteps. The rubbish heaps of the early gathering and hunting humans were ideal sites for the establishment of weeds. It could be concluded that it was from among these plants that humans began to select some of the first crop plants, plants such as potatoes, carrots, sunflowers, barley, oats and rye.

Weeds: Why?

What makes a successful weed? What biological talents are necessary for a plant to survive in an often hostile environment? Certain characteristics seem to be prevalent in weedy plants. Fortunately for the gardener no single plant possesses all of these characteristics—there is no superweed, though weeds may tenaciously persist in a prize lawn or garden.

Consider the environment of a weed: harsh and often subjected to extremes of moisture, temperature, nutrient availability and human interference. These plants must maintain a high degree of morphological and physiological plasticity in the face of such an environmental onslaught.

Foremost in the weed's life cycle is the ability for rapid seedling growth and development. All other characteristics become inconsequential if a weed cannot grow and reproduce before succumbing to the gardener's hoe or lawnmower. Common reproductive habits include relative independence of environmental controls on flowering, including the ability to flower and set seed in a wide range of unfavorable conditions such as crowding, waterlogging, or drought. A high occurrence of self-pollination in weeds eliminates the need for specialized pollinators and makes possible the production of viable offspring with a single parent. Selfing also maximizes use of the plant's energy for pollen production, since the pollen grains are

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*John Bolivar received his degree in botany from the University of Washington. He is a scientific illustrator currently studying biological photography in Seattle.

***Bellis perennis,* English daisy, a pretty but often uninvited inhabitant of lawns.**

Photo: J. Bolivar

not subject to the vagaries of wind pollination. This system allows for a high percentage of fertilization per pollen produced thereby decreasing the amount of pollen required. Many weeds, therefore, possess the ability to set at least a few seeds during adverse conditions and produce many seeds during favorable ones.

Baker (1965) discusses the occurrence of a "general purpose" genotype in weeds which in perennials may be more important than the ability of a plant to set seed. Such genotypes endow the plant with wide environmental tolerance enabling it to colonize many different habitats. A weed's ability to maintain this "general purpose" genotype stems from a propensity towards vegetative reproduction and the sexual strategies of apomixis and self-pollination. It appears that tenacity, adaptability, and opportunistic behaviour are keynote characteristics of a successful weed.

Weeds: From Here to There

Weed in their many forms appear ubiquitous in distribution. How do weeds get dispersed if they are so unwanted? Oddly enough, the major vector of dispersal is also the archenemy of weeds—humanity. Methods of weed dissemination by humans include seed crop and feed contamination; bulk movement of sand, ballast and soil containing weed seeds; internal and external transferance of seeds by animals; and the deliberate introduction of weeds as garden plants, herbs, curiosities, and medicinals. The passage of weedy species over most major geographical barriers, such as mountains and oceans, is mainly a result of human agency. For example, most American weeds have European origins and have spread across the country from east to west with successive waves of expansion. The common plantain (*Plantago major*) is known to native Americans as "white man's foot" because of its appearance simultaneously with that of the early pioneers of the western United States. Also important in dispersal are natural modifications of weed fruits and seeds. For example, the parachute-like pappus of many composites (e.g. dandelions) ensures efficient long distance wind dispersal. Many wetland species have floating fruits providing easy dissemination by water. Fruit modifications facilitating seed distribution by attachment to roving animals and farm machinery are common (e.g. cocklebur, *Xanthium* spp.). Many weeds such as chickweed (*Stellaria media*) and shepherd's purse (*Capsella bursa-pastoris*) germinate after passage through animal or bird digestive tracts allowing the seeds to "hitch a ride" over long distances.

Once dispersed, the success of a weed as a colonizer may depend upon several factors. A plant new to an area may be better able to escape such constraints as predation and disease, which may have held it in check in its original habitat.

Weeds: Jekyll and Hyde

Weedy plants have had many uses, often providing an insight into the human experience. *Hypericum* spp. (St. Johnswort) has long been considered worthy of respect. The genus was in some way associated with religious practices prevalent in pre-Christian Britain. A species of *Hypericum* is also reputed to have been "Fuga Daemonum," the plant the ancient Greeks believed to have the power of driving away demons.

Today, weeds continue to make their presence known and have tremendously important roles in human welfare. Many plants such as the common and unobtrusive ribwort plantain (*Plantago lanceolata*) may be a factor in inducing hayfever, an important consideration in

urban areas where it is prevalent. The poisonous foxglove (*Digitalis purpurea*) is a common roadside weed in much of the United States. It is also a prime source of several glycosides used in the treatment of congestive heart failure. Though having many positive attributes, weeds reach a zenith of vexation in their interference with agriculture and the often subsequent reduction in yield and quality of crops. Weeds may be poisonous or unpalatable to livestock, or nutritionally deficient, or may cause tainting of animal products: wild garlic (*Allium vineale*) causes unacceptable flavors in meat and milk. Weeds may act as hosts for diseases and pests which may adversely affect crop production. Some weed plant parts have a deleterious effect on harvesting of crops and animal furs: *Galium aparine* (cleavers) becomes entangled in sheep wool and may foul the product or injure the animal. The notorious water hyacinth (*Eichornia crassipes*) is an excellent example of a weed in an aquatic environment which can clog waterways and irrigation canals, often hampering travel or water flow to thirsty crop plants.

Weeds may be beneficial beautiful plants exhibiting a tenacious capacity for survival as well as having a definite "propensity for vexation." I hope I have left you with an awareness of both characters of the "Jekyll and Hydes" of the plant kingdom. With this awareness thoughts of total eradication may be tempered by the realization that a rose by any other name is probably a weed.

Rumex acetosella, **sour weed, introduced from Europe and now common in semiwaste areas and gardens. This plant is also called sheep-, red-, cow-, mountain-, field- or horse-sorrel.**

Drawing: J. Bolivar

VEGETABLE VIGNETTES

Taraxacum officinale Sunflower family (Compositae)

Known as dandelion, blowball, yellow gown or priest's crown, few plants achieve the notoriety of this *piece de resistance* of weeds. Used by Arabian physicians in the 10th century, it was called *Denta Leonis* (lion's teeth) after the leaf shape. Later the common name dandelion was derived from the French *dents de lion* (teeth of the lion). Sixteenth century apothecaries knew it as *Herba Urinaria,* a term emphasizing its diuretic qualities, which the French cognomen *pissenlit* also implies. Although a ubiquitous weed and considered a pest by gardeners, the dandelion is one of the most useful of European herbs. It is one of the safest and most effective plant diuretics and one of the best herbs known in treating liver problems. Leaves and roots are eaten as a fall or spring vegetable and the roots, when dried, chopped and roasted provided a well-known coffee substitute. All parts have been used in making fermented beers and wine. The Russian dandelion was used during World War II as a source of rubber which was extracted from the latex of the roots. Smaller amounts of a similar latex are found in *Taraxacum officinale*.

Plantago lanceolata (L.) Plantain family (Plantaginaceae)

Plantago lanceolata has many common names: ribgrass, snake plant, black plantain, ribwort, long plantain, jack straw, English plantain and buckhorn plantain.

Ribgrass is a dark green slender weed much taller than the other commonly found plantain, *P. major*. Its leaf blades are less than one inch wide, 3- to 5-ribbed, prostrate or erect. Some old books call this weed *costa canina* or "dog's rib," in allusion to the prominent veins on the leaves that earned it the name of ribwort and the popular medieval name of "quinquenervia." The young leaves of this plant may be used in salads and the seeds may be ground into flour.

Plantago major (L.) Plantain family (Plantaginaceae)

Commonly called great plantain, white man's foot, rat-tail plantain, or waybread, *Plantago major* is a small, spreading perennial, native to Europe and introduced to other temperate zones. Called "white man's footsteps" by North American Indians, this plant has appeared almost simultaneously with the European settlers. The name *Plantago* is a Latin derivative of "planta" meaning sole of the foot, stemming from the plant's characteristically broad leaves. Greater plantain is tolerant of most conditions and is widely distributed on cultivated land, wasteland, roadsides, and lawns. The leaves are ovate, entire or slightly toothed with long petioles and prominent ribs.

***Plantago lanceolata*, ribgrass or long plantain.**

Photo: J. Bolivar

***Plantago major,* great plantain.** **Photo: J. Bolivar**

They occur in rosettes. The scentless flowers are wind pollinated, and appear inconspicuous, yellow-green, about 3 mm wide. They occur on cylindrical spikes that are persistent as dried stalks dispersing seeds throughout the winter. Waybread may be a reservoir for a tobacco mosaic virus that causes internal browning of tomato fruits. Although considered a weed, the great plantain has a great reputation in herbal lore. Chaucer mentioned it in his writing and Shakespeare had characters in at least two plays who recommended plantain leaf for "broken skin." The Shoshone made poultices of the whole plant to apply to battle bruises. In Europe, the roots, leaves and seeds have herbal uses, principally as a poultice ointment or in decoction for the external treatment of wounds, ulcers, and bites.

Eurphorbia peplus (L.) Spurge family (Euphorbiaceae)

Petty spurge, an annual of European origin and now a common weed of much of North America, is mainly found on wasteland west of the Cascades from Washington to California. This is a very common garden and lawn weed. *Euphorbia peplus* is a small, delicate-appearing herb 4 to 20 cm in height, with leaves that are light green to red, often alternate on the

***Euphorbia peplus,* petty spurge.**

Photo: J. Bolivar

Oxalis corniculata. **Drawing: J. Bolivar**

lower stem and opposite on the upper reproductive stalks. The flowers are small, green and inconspicuous, and are enclosed by a protective sheath resulting in the name *peplus,* from the Greek *peplos,* meaning robe or tunic. The common name for the family, spurges, indicates the use of these plants as purgatives, from the Latin "purgatoris," the purging herb. The generic name *Euphorbia* was given in honour of Euphorbus, a Greek physician of the 1st century A.D. who used the dried latex of a similar species, *E. resinifera* (Bergl.) as a purgative. Petty spurge also exudes a milky latex when injured and is reportedly poisonous to humans and livestock.

Oxalis corniculata (L.) Oxalis family (Oxalidaceae)

Cloverlike in appearance, wood sorrel, sour grass or sour trefoil is a slender, prostrate, spreading perennial, native of Europe. Its form protects it from being mowed in lawns where it is common. The pale green leaves are on long petioles and are composed of three leaflets which fold down around the leaf stalk with nightfall. Flowers are yellow and funnel shaped, blooming May to October. The fruits are five-angled capsules which forcibly eject the seeds in dry weather. In some places this plant serves as an erosion preventer in perennial crops such as tea and coconuts. It is an alternate host for several species of nematodes and beet curly top virus. Small amounts of its leaves may be used in salads or sauces but due to a high concentration of sour-tasting oxalic acid (hence *Oxalis,* Greek for sour) it is poisonous in large amounts.

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* * *

The weed patch. **Photo: A.L. Jacobson**

The Weed Patch

*ARTHUR LEE JACOBSON**

Perhaps the most unusual of the many interesting Seattle Tilth Urban Agriculture Center demonstration plots at the Good Shepherd Center in Wallingford, is the one set aside solely for *weeds*. Here, visitors can learn the names, appearances and life histories of these often unwanted plants. Called "the weed patch," it consists of a rectangular plot about five feet wide by ten feet long, surrounded by a sturdy, neat wooden border of a natural light gray color. A conspicuous sign exclaims in bold letters WEEDS, and lists the names of the species in alphabetical order.

Depending on the time of year, anywhere from 30 to over twice that number of plastic name tags are seen near the individual weed species they identify. Late spring finds the patch at its best, a veritable flower garden of beauty, commanding appreciative glances as a result of so many different kinds of herbs all close together and flowering at once. Summer becomes the congested season with weeds crowded "elbow to elbow"; a few such as foxglove, teasel and lambs'-quarters tower six feet or more; as many as 65 species of weeds may be seen all jammed into 50 square feet! Winter finds the patch at its nadir, only 25 to 30 species, but still a relative oasis of greenery compared to the nearby barren gardening plots.

The first weed plantings were made April 2, 1982. A few of those original plants are still present. No vandalism of any sort has been committed, and many gratified observers have warmly commended the project. Whether or not this weed patch is unique, it certainly is an unusual display. Gardeners who have spent years combating certain weeds in their yards, not able to curse the things by name, exhibit great pleasure at locating in the weed patch specimens of their bitter enemies, plainly labeled. Armed with this information, they are able to consult books to learn the best ways to eradicate or utilize these lowly but tenacious plants. People who have read in books about weeds, can visit the patch in order to see a

*Arthur Lee Jacobson is a Seattle gardener with a keen interest in documenting city plant life.

living example. In short, the weeds are there for all who care to despise or to admire them.

At first glance, the weed patch appears to be an indiscriminate mixture of plants, but it is actually quite an exclusive gathering; space limitations are such that only a selected percentage of the city's weed species can be allowed admission, and then only in formal array. The planting plots are planned, with tall species in the middle and vines trained up posts. Poor examples are not brought into the patch, nor are dwarfish waifs that germinate and begin to grow in the patch countenanced. These policies may appear harsh, but once a specimen is admitted, it is permitted to stay until it dies (unless, as has occurred only in the case of the perennial sow-thistle, *Sonchus arvensis*, wantonly obnoxious behavior simply forces summary banishment).

The curator, in determining inclusion of a weed, considers the *abundance* of the species, its probable *response* to the weed patch environment, the *size* it might attain, its *reproductive vigor*, the number, if any, of very similar *relatives*, and the preferred and usual *habitat* of the species. Taken altogether, the favored weeds are the common, rather tame garden and lawn types; rarities and huge rampant field weeds are usually disdained. Yet, these are allowed in moderation when space permits or when there is exceptional beauty, notoriety or other singularity on the side of the weed. Thus, an unworthy weed can, as it were, "buy" its way in by somehow engaging the affections of the curator.

Over 80 species have been represented at one time or another, only seven or eight of which are *native* to our area. A conservative estimate of the herbaceous, terrestrial, vascular weed population of Seattle would be more than 225 species. (We forbear to attempt a definition of the term *weed:* suffice it to say, one need never search far to find them. Most in the weed patch were collected quite nearby.)

Those weeds officially sanctioned in the patch are given labels with English vernacular names. The list on the sign also supplies scientific names, and states whether the weeds are annual, biennial or perennial, edible or toxic.

Unauthorized weed seedlings are ever popping up. In general they are ruthlessly turned under or composted. The few that are given permission to grow receive an absolute minimum of watering and a thin, localized mulching in summer. If a weed cannot take care of itself, it has no business in a weed garden.

Flowering is encouraged because it makes for easier identification, besides adding color and beauty; yet reseeding is largely discouraged. An ingenious combination of miserably shallow, poor clayey soil (*rich* soil fosters lush vegetative growth), and continual "snipping off" of immature seeds induces the weed to keep flowering in a frantic effort to produce seeds. Those species that proliferate overzealously by underground means, are sometimes imprisoned in containers. Sheep sorrel (*Rumex acetosella*) responded to this treatment by pining away, belike ready to die, and then creeping over the edge of its pot to escape.

As the aforementioned regimen of maintenance is carried out on an irregular schedule, there are periods when the patch is truly messy, and other times when it is more attractive than the neighboring vegetable plots. A visitor therefore needs to observe the patch more than once; there will always be something new and worthwhile to see.

Name Change—Japanese Garden Society

The Japanese Garden Society of Seattle is the new title of the group formerly called Friends of the Japanese Garden (*Arboretum Bulletin* 46(2): back cover, Summer 1983). New members are welcome; call Ruth Vorobik, 523-4453.

LEROY P. COLLINS

Joseph A. Witt 1920-1984

Joseph A. Witt, Professor of Urban Horticulture and Curator of Plant Collections in the Arboretum, passed away on May 7, 1984. A long-time contributor to the Arboretum Bulletin, he was a friend to the Arboretum, the University, and to the horticultural community. Professor Witt will be best remembered as a warm human being, ready to lead a tour, to give a lecture, to explain about a plant, or to be an advisor to a developing botanical garden. He knew the ornamental and native plants of the Pacific Northwest like few others, and he was never too busy to share his knowledge with a famed professor from another country, a garden club, or a busload of school children. He was also a professional of first rate, serving as president of the American Association of Botanical Gardens and Arboreta during a critical time in that Association's development, and as an officer for the International Society of Arboriculture and for many other horticultural organizations. He received the 1982 Outstanding Public Service Award from the University of Washington Alumni Association.

On June 7, a large number of Joe's friends and colleagues gathered to share their memories of this quiet yet influential man—truly the finest tribute Joe could have received. People from all kinds of groups were there: college faculty, former students, high school teachers, garden club members, extension people, City personnel, botanists, horticulturists, personal friends and family, and each had a special memory of him. I am glad to have known Joseph Witt myself; all of us will miss him.

HAROLD B. TUKEY, JR.
Director of Arboreta

Hazel catkins of the purple-leaved *Corylus maxima* 'Atropurpurea Superba' in the Arboretum.
Photo: J.A. Jacobson

Hazels and Filberts in Seattle

*ARTHUR LEE JACOBSON**

Hazels and filberts are useful, interesting and easily cared for, yet little grown and not well known in our area. Let us consider the virtues of these trees and notice their distribution and sizes recorded in Seattle.

The fifteen species of the genus *Corylus* are, for the most part, shrubs or medium-sized trees. One, perhaps the largest on record, was mentioned by Ernest Wilson in 1930: "The Oriental *C. chinensis* is a very large tree and I have a vivid recollection of one giant, growing in central China, fully 120 feet tall and 18 feet in girth of trunk with a broad oval crown." Related trees include the alders, birches and hornbeams.

The European Hazel

The English name "hazel" is of Anglo-Saxon derivation, and referred originally to the common species of Europe, *Corylus avellana*. Now the term is used in many English-speaking countries. In German, hazel is called *hasel*, in Scandinavian *hassel*, in French *noisettier* or *coudrier*, in Italian *avellano* or *nocciolo* and in Spanish *avellana*. The English also refer to the nuts as "cobnuts," a term indicating something round or plump—perhaps related to the Irish *coll* or *cuillean* and the Welsh *collen,* all names for the hazel.

Corylus avellana is a large shrub or rarely a small tree up to fifty feet tall. The wood is heavy and strong, but being available chiefly in small crooked pieces has had limited use as walking-sticks, fishing-rods, umbrella-handles, salmon-traps, charcoal crayons and tooth-picks; in wattle and daub construction; and for dowsing-rod divination (to seek hidden sources of water, precious metals and mines, stolen goods and even criminals). The hazel suckers freely from the base of the stem (not from the roots) and thus makes excellent coppice wood (brushwood harvested from deliberately trimmed shrubs), its abundant pliant shoots being used to make wicker baskets, bird cages, riding switches and packing material.

European folklore concerning the hazel is varied and amusing; a pervasive theme is sum-

med up by Kovacevic (1962) thus: "In popular belief the hazelnut is a symbol of fertility. Peasants in many parts of Europe believe that an abundance of hazelnuts in autumn presages many illegitimate children for the next year." For a first-hand account of this conviction we can do no better than read a passage from fiery William Cobbett (1762-1835), the famous political and agricultural pamphleteer:

> "This is a great *nut* year. I saw them hanging very thick on the way-side during a great part of this day's ride; and they put me in mind of the old saying, 'A great *nut* year is a great *bastard year.*' That is to say, the *succeeding year* is a great year for bastards. I once asked a farmer, who had often been *overseer* of the poor, whether he really thought, that there was any ground for this old saying, or whether he thought it was mere banter? He said, that he was sure that there were *good grounds for it;* and he even cited instances in proof, and mentioned one particular year, when there were four times as many bastards as ever had been born in a year in the parish before; an effect which he ascribed solely to the crop of nuts of the year before. Now, if this be the case, ought not PARSON MALTHUS, LAWYER SCARLETT, and the rest of that tribe, to turn their attention to the nut-trees? The *Vice Society* too, with that holy man WILBERFORCE at its head, ought to look out sharp after these mischievous nut-trees. A law to cause them all to be grubbed up, and thrown into the fire, would, certainly, be far less unreasonable than many things which we have seen and heard of."
>
> Tonbridge Wells, Kent
> Saturday, 30 August, 1823

Filberts

So much for the European hazel as it occurs in the wild. Commercially cultivated hazels, called filberts, are mostly hybrids between *Corylus avellana* and *C. maxima*, the giant filbert, which achieves thirty feet and produces large nuts. In Europe most filberts are grown in Turkey, Spain and Italy. In England most come from Kent. In the United States almost the entire commercial crop is from Oregon and southern Washington, where filbert cultivars such as these are used: 'Barcelona' (especially), 'Butler', 'Daviana', 'DuChilly', 'Ennis' and 'Nooksack'. They are readily propagated by layering. For optimal productivity at least two different cultivars must be planted, preferably in rich soil; full sunshine is desirable but not necessary. The suckers ought to be pruned off to encourage development of one or a few stout trunks. Failure to remove the suckers annually will witness a big shrub, posing awkward harvesting problems. Because of the relatively few troubles associated with filbert growing here, it may be said the main tasks involved are sucker control and nut harvesting. Fertilization and crown pruning as well as other practices carried on in commercial orchards are really not suitable or needed for the casual home gardener with a couple of trees.

Sights In Seattle

Turning to Seattle, we find an unusually rich, if not numerous, population of hazels in private gardens, cemeteries, and in both formal and

The leaf of the Funduk hazel (*Corylus avellana* 'Funduk') with the reddish markings visible only in spring (page 14).
Leaf courtesy A.L. Jacobson
Photo: Marcia Muto, U.W. Instructional Media Services

informal parks and public landscapes. The fancy filbert cultivars such as 'Barcelona' seem to be found exclusively on private property. Yet the European hazel in its plain state, along with some of its ornamental cultivars, and not so fancy nut-bearing ones, has been planted in our parks.

The plain European hazel is perhaps best seen in Interlaken Park, where it attains 37 feet in height and has trunks nearly six inches thick. The same park has some nondescript hybrids with the influence of *Corylus maxima* obvious—but I do not know what cultivar names to assign these. Moreover, there has been definite hybridization of *C. avellana* planted in the park, and our native wild species *C. cornuta*. Hybridizing in hazels is so common that it is almost boring, and alas! in this particular instance the hybrid nuts are smaller than those of either parent!

An extremely noteworthy, rare cultivar of the European hazel is also found in Interlaken Park: the Funduk hazel (*Corylus avellana* 'Funduk') distinguished only in spring, while leafing-out, when its leaves have the stigmatic sign Christians associate with the Easter season. Each leaf appears as if it had a spreading drop of blood right in the middle. As summer matures, the spots disappear! Perhaps one reason why this wondrous, curious plant is so rarely grown, is that many people dislike the sight of blood.

Another rare cultivar is the cutleaf hazel, *Corylus avellana* 'Heterophylla'. Two specimens can be seen in Lakeview Park in the Denny-Blaine neighborhood. Although many trees have cutleaf cultivars, few are commonly grown hereabouts with the exception of the Japanese maple (*Acer palmatum*, many clones), European white birch (*Betula pendula* 'Dalecarlica' etc.), and staghorn sumac (*Rhus typhina* 'Dissecta'). The comparative rarity of cutleaf trees may be due to their reduced vigor and their greater susceptibility to aphid attacks and other debilitating influences.

The corkscrew hazel or Harry Lauder's walking-stick (*Corylus avellana* 'Contorta'), is a radically twisted, slow-growing, bushy cultivar

The corkscrew hazel (*Corylus avellana* 'Contorta') in the Arboretum.
Photo: A.L. Jacobson

HAZEL NUT COLLECTION **Photo: J.A. Jacobson**

top row, left to right:
cultivated filbert (*Corylus avellana* x *C. maxima*)
orchard-grown commercial strain
purple-leaf giant filbert (*C. maxima* 'Purpurea')
Japanese hazel (*C. sieboldiana*)
park hybrid, *C. avellana* predominant
park hybrid, *C. maxima* predominant

bottom row:
Western beaked hazel (*C. cornuta* var. *californica*)
native hybrid (*C. avellana* x *C. cornuta* var. *californica*)
Arboretum # 356-69 (*C. tibetica?*)
corkscrew hazel (*C. avellana* 'Contorta')
European hazel, park variety (*C. avellana*)

of the hazel. (It was discovered growing in a hedge in Gloucestershire, England in 1863.) When it blooms it serves as a particularly arresting feature of the scenery. An expensive plant, it is uncommon, yet by no means as rare as the aforementioned kinds. None seem to be in the parks, unless the fine Arboretum one be counted. Most are in private gardens; it has been used in the landscaping at Seattle University and at Washelli Cemetery, and two have been planted as street trees on Queen Anne Hill (W. Raye west of 10th). It is quite a fair nut-producer besides being a distinctive novelty plant; nor does it sucker as much as the other kinds.

The golden hazel (*Corylus avellana* 'Aurea'), bearing yellow foliage, is said to be planted somewhere on Queen Anne Hill. I have yet to find it anywhere, but Marvin Black, city arborist of Seattle, assures me a home on south Queen Anne has a foundation planting of it.

Most of the purple-leaf cultivars here are derived from *Corylus maxima*, the giant filbert, including the 'Purpurea' clone that is so common, and so very dark. The nuts it bears are very different from the nuts of the other filberts. Another purple-leaf hazel, perhaps no longer planted, displaying more of a bronzy-green color, is the 'Fusco-rubra' cultivar of *C. avellana*. The Arboretum has the purple-leaved *C. maxima* 'Purpurea superba'.

Our Native Hazel

The hazel native to our area, called in books the California or Western beaked hazel, is *Corylus cornuta* var. *californica*. It is one of the most common understory elements in the woods of the Seattle area. Usually it is a shrub, no question about it. On mucky clay soils it is a pitiful, scrawny spectacle indeed; but in rich forest humus a truly enormous shrub can develop a single thick trunk (or just a few) ringed by slender suckers. A hazel without any suckers is unheard of, and open-grown hazels in full sunshine become veritable bush pincushions. In short, hazel is much like the vine maple in the matter of growth habit, only worse.

How large can hazel become? Most authors of tree books totally ignore it; those that mention it usually assign it a maximum height of 20 or 25 feet, and do not supply trunk diameters at all. Eliot (1948) says the biggest he had heard of

Turkish hazel (*Corylus colurna*) in Volunteer Park.
Photo: A.L. Jacobson

The fiercely ornamental husks of the nuts of Turkish hazel (*Corylus colurna*).
Photo: Don Normark

The trunk of Turkish hazel, in Volunteer Park.
Photo: A.L. Jacobson

"... was about a foot through ..." Thomas Howel in his *A Flora of Northwest America* (1903), allows it 30 feet, a figure that seems a reasonable average maximum height, but that might be scoffed at by one Mr. T.J. May, who, from his home in Mount Vernon, sent a letter to the USDA (1896), saying in part: "Hazelnuts flourish here as in no other country that I ever saw; they are native and grow all through the timber. They grow on trees instead of bushes; many of them growing to the height of 50 or 60 feet..."

According to the American Forestry Association's "National Register" of big trees, the largest hazel currently on record is one in Maples Park of the Siuslaw National Forest, Oregon, that in 1972 measured 22 feet tall, 20 feet in average crown spread, and 6.7 inches dbh of the trunk. Whether this tree is single-trunked or whether it has several with only the thickest listed, is unspecified. Whatever the case, Seattle's largest hazel is about twice this

size and has been nominated as the new champion, to usurp the throne from the one in Oregon! The statistics of our best (in Carkeek Park) are: 47 feet in height for its tallest trunk, 46 for its second tallest, 42 feet the average crown spread—a figure explained by the tree being several-trunked and having two more or less laterally-growing trunks—and seven inches dbh of the thickest trunk. Finding hazels of similar height is not hard, but to locate one combining such thick trunks, lofty height and umbrageous width of branches, is a task few would undertake.

A melancholy opportunity to assess the age of an unusually large example of our native hazel presented itself one day last February when an enormous specimen was cut down in Interlaken Park. The butt log carried away measured just over five feet long and scaled 70 pounds. At the thinnest point its diameter was more than six inches. The bark was one-eighth of an inch thick. No heartwood was present; the age by ring count appeared to be 38 years. By extrapolation, and by bearing in mind that Carkeek Park was logged sometime in the 1920s, we might estimate the age of the proposed national champion hazel there, at not likely much more than 50 years. Apparently an individual trunk of hazel is relatively short lived but the clump as a whole has a virtually indefinite ability to send up new stems.

Flowering and Fruiting

Most non-native hazels begin to flower as early as January. Our native species flowers in February, with conspicuous golden male catkins lengthening to three to five inches when loosely hanging from the twigs, and inconspicuous tiny crimson female flowers. By late June and early July at least some nuts are ripe enough to be eaten, albeit not fully ripe in a physiological sense. For our area, at any rate, this sets to rest the traditional notion of Autumn nut-harvesting! Indeed, if one searches for native hazelnuts after mid-August, the attempt will likely be in vain; by then squirrels and jays will have nabbed all but a precious few.

The nuts of the non-native hazels and filberts ripen later, even if the trees flower earlier. Mid-August through late September is prime harvest time. I wait until I notice a squirrel cracking nuts and littering the ground with husks. Then, with gloves, a container and clippers, collecting begins. When the squirrels grow annoyed or frightened they sometimes throw nuts down, which is a boon, as many nuts grow so high that there is no way a person could reach them without a ladder.

The long fibrous husks encasing the native nuts (like a sock around a tennis ball) are covered with bristly hairs which are irritating to human skin, and thus lead to the recommendation of gloves. The freshly gathered nuts prove easier to crack, and their nutmeats moister, than the old, dry, store-bought filberts. Sometimes the nuts are borne in pairs or threes, rarely even four to a cluster. A certain percentage always turn out to be "blanks" or immature nuts. Squirrels can somehow distinguish these without even cracking them; our only method is the water test, wherein the good ones sink and the hollow ones swim. At any rate, the way to obtain nuts is to compete with squirrels and jays, visit a "u-pick" orchard, or buy filberts from a store.

Other Kinds of Hazels

Besides the native and the various European hazels, there are at least three others here. The Turkish, or Constantinople hazel, *Corylus colurna*, is found at the Arboretum where two low-crowned trees bear plentiful crops regularly; and at Volunteer Park where a huge specimen stands 62 feet tall and girths 4 feet 4 inches at breast height, but alas, bears duds, perhaps because it lacks a partner for cross-pollination. The Turkish nuts are encased in enormous, fiercely ornamental husks, but the nutmeats are small.

Two kinds found only at the Arboretum are the Japanese hazel, *Corylus sieboldiana*, and #356-69, received as *C. tibetica* in 1969 but the identification has not been checked; both of these produce nuts. Portland's Hoyt Arboretum has four Chinese hazels, *C. chinensis*, planted in 1944.

Another to be expected is the weeping European hazel, *Corylus avellana* 'Pendula'. Readers interested in the exact locations of specimens mentioned, or in seeing samples of the various kinds of nuts, are invited to consult the writer. It would be satisfying to help spread the cultivation of hazels in Seattle.

Here, then, follows a list of the various hazels in Seattle.

Corylus avellana (European hazel)
C. avellana 'Aurea' (golden hazel)
C. avellana 'Contorta' (corkscrew hazel)
C. avellana 'Funduk' (stigmatic hazel)
C. avellana 'Fusco-rubra' (purple-leaf hazel)
C. avellana 'Heterophylla' (cutleaf hazel)
C. avellana x *C. maxima* (Park hybrids)
C. avellana x *C. maxima* (filbert cultivars e.g. 'Barcelona')
C. avellana x *C. cornuta* var. *californica* (native hybrid).
C. cornuta var. *californica* (Western beaked hazel)
C. colurna (Turkish hazel)
C. maxima 'Purpurea' (purple-leaf giant filbert)
C. sieboldiana (Japanese hazel)
Corylus #356-69 (*C. tibetica*?)

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The Jay Bird, My Mnemonic Match

*GEORGE SCHENK**

Downhill from my garden is an old filbert orchard. There, raiding Steller's jays make off with nearly the whole crop. (My neighbor who owns the orchard tells me that if she moves quickly enough she may manage to harvest one small-size grocery sack full of nuts.) The birds plant in my garden, among the clustered trunks of shrubs, any filberts that are too ripe and hard for them to crack. The jays never seem to retrieve their caches, they of bird-brain and minuscule memory. The nuts sprout and business-like little filbert trees come up in the midst of shrubbery. The interloping seedlings usually go undiscovered for a couple of years, by which time they've become tap-rooted and impossible to yank out. Neither can they be dug out, involved as they are with their host shrubs. I cut them down to the ground, they come right back; repeat. Filbert trees shall inherit the earth of my garden I don't doubt.

But to keep the account balanced I can't leave filberts and jays without admitting my guilt in pooh-poohing the brainpower of those nut-hiding, nut-forgetting birds. In half an hour I myself have forgotten the hiding places of Easter eggs I've nestled in my garden shrubbery for children's egg hunts. The children always miss a few, and in my gardening I might next spy those eggs a year or two years later, in reproachful condition, the cartoon-strip colors of their shells spotted through with the black of Chinese century eggs. Nothing so berates a bad memory as does chancing upon a very old Easter egg in the garden.

*George Schenk is a Seattle-area gardener who has written a number of delightful articles of garden philosophy.

Garden Reminiscence

*LESLIE NORTON**

He does not die that can bequeath
Some influence to the land he knows,
Or dares, persistent, interwreath
Love permanent with the wild hedgerows;
He does not die, but still remains
Substantiate with his darling plains.

Hilaire Belloc in *The Four Men*

Many years ago when I would go with my grandmother to visit a certain one of her friends, the visit always included a walk in the garden. The small plot surrounded a mill company house, but in spite of the impermanence this might have caused the gardener to feel, she had nevertheless poured her love of plants and flowers and fragrances into her own little Eden.

One entered the garden by a gate set beneath a trellised arch. After curving beneath a pergola entwined with wisteria, the walk passed a sweet-smelling viburnum and a rounded English box before reaching the porch steps. I remember a fine white camellia, the large single flowers centered with rich golden stamens. I remember, too, a bed of fairy-like schizanthus, and among the trees, a lovely white Japanese flowering cherry, and a sturdy young chestnut. Birds were encouraged in many ways, and the garden was a sanctuary for them. If there was a lawn, it must have been tiny, so great was the profusion of flowers.

Now the gardener is gone. The rows of mill company houses are gone. The land has been cleared and forested with closely set firs. But in the clearing away of this garden, two trees were left to stand, the flowering cherry and the chestnut. The foresters too, seemed to have respected these trees, and left a bit of open space around them.

In the spring now the flowering cherry is beautiful against the dark green of the new woodland foliage. A young man whose grandmother also knew the gardener has grafted a scion from this tree onto a seedling he found nearby, and has taken the young plant into his own garden.

In the fall, I sometimes see passers-by beneath the golden chestnut tree gathering the prickly-burred chestnuts. My daughter has done this, and enjoys this gift from a gardener she never knew, but knows was a friend of her great-grandmother.

When I stop occasionally to pull a few strands of blackberry from the two trees, I stand once more, in memory, in this little garden. Truly, some spirit of the gardener still lives here, and there is love permanently interwreathed in this wild hedgerow.

* * *

*Leslie Norton was raised in Western Washington and has been a Seattle-area gardener for some years. She works in the Camp Fire nature program and leads eco-walks in her own woods. See *Arboretum Bulletin* 46(2):15, Summer 1983.

A famous view of the Japanese Garden looks toward the moon-viewing stand, with the "Alighting Wild Geese" lantern *(Misaki-gata)* in the foreground.

Photo: Susan K. Godfrey

Our Japanese Garden— A Continuing Treasure

*KENNETH W. SORRELLS**

Momoyama Period: 1568 to 1615. A short period in Japanese history when civil wars had ceased and a time of peace had come at last.

It seems strange that we people in this age should enjoy the coming of peace to Japan which occurred almost 300 years ago. Yet it was during the Momoyama period that Japan turned away from the quiet black-and-white gardens of the Zen sect and cultivated gardens brilliant with bright flowers, with lanterns, rocks, fish and trees of all kinds. A Momoyama garden distinguishes itself by a great show of color, both in the spring and in the fall, It cares little for drabness.

*Chairman, Japanese Garden Committee and member of the Arboretum Botanical Garden Advisory Committee.

The Japanese Garden in the Arboretum is a garden in the Momoyama style. In spring, colors abound in the 600 azaleas, the 300 rhododendrons, and the many kinds of iris. The cherry trees respond with flowers both pink and white, and the ornamental carp (*koi*) swimming in the pond show flashes of spirit in keeping with the new warmth of the air. In the fall the trees brighten with color, setting off a dazzling display. Candles on the pines tell the gardeners when it is time for the clipping and pruning of new growth. Overgrown trees and shrubs are routinely pruned, for a Japanese garden must be kept in balance at all times.

For almost twenty-five years now the garden has alternately flowered and rested. It sleeps through the winter months and awakens again in the spring for another display for the visitors who come from nearly every country in the world. In Japan there is a saying that it takes almost 300 years for a Japanese garden to mature. By these standards, our garden is in its infancy.

Twenty-seven years ago, Mr. Juki Iida, builder of over a thousand Japanese gardens, was asked to work with Mr. T. Moriwaki of the Tokyo Park Department on a plan for our Japanese garden. With seven other landscape architects they drew up the 35 pages of plans in which every item for the four-acre garden was detailed; the permanent resting place for every plant, rock and tree was indicated. Ours was to be an authentic Japanese garden and great care was to be taken at all times to see that its authenticity remained. To this date it is authentic in every respect. This is not to say that the plantings in the garden have not changed, for all gardens must evolve with time.

When the garden was built, 584 rocks were brought in to decorate and form the foundation.

Stones and path in the Japanese Garden.

Photo: Susan K. Godfrey

Wisteria in early spring, trained on a bamboo and cedar arbor.

Photo: Susan K. Godfrey

A heart-shaped beam end ornaments the "Emperor's Gate," opened only on special occasions.
Photo: Susan K. Godfrey

Most of these have been set two-thirds underground in the Japanese manner. Each of the rocks weighs at least one-half ton and several of them exceed eight tons. When the rocks were being chosen for the garden, Mr. Iida himself toured the Pacific Northwest looking for just the rock quality he needed. Mt. Shuksan and Mt. Si had good rocks, but both of these were inferior to the Bandera rocks now seen in the garden. (Bandera rocks are 300,000 years older than the rocks on Mt. Si; the rocks from Mt. Shuksan are fairly new as time is counted. Good rocks are hard, not disintegrating, and of a dark unspeckled color.) As the rocks were selected by Mr. Iida, each was wrapped in bamboo matting to prevent its being scratched during the move to the garden site. Today each rock has been set exactly in its place as shown on the original garden plans. As our guides point out to visitors, the rock work of the garden is one of its finest features.

A tragedy to the garden occurred in 1973 when the Tea House was destroyed by fire. It took seven years to initiate rebuilding. (During this time, visitors from Japan were appalled that we would allow the Tea House to be missing from the garden. The Tea House is the focus of the garden; they felt that it should have been replaced immediately and at any cost.) The Prentice Bloedel Unit of the Arboretum Foundation helped the fund-raising and the rebuilding of the Tea House. It took almost two years to secure permission to rebuild the structure, but in 1980 the Seattle City Council adopted an ordinance allowing the work to proceed. Funds were raised, and a hunt for the special kinds of rare woods to be used was successful. The final funding of the project was greatly helped by a sizable donation from the Urasenke Foundation of Japan, center of the Urasenke School of Tea. The study of the Tea Ceremony became a part of the University of Washington curriculum in spring quarter of 1981; it is a popular subject in the Asian Art History Department and our Tea House is used in part as a classroom.

While keeping the garden authentic is a primary concern, at times this can be a most costly consideration. The Tea House was rebuilt from the original plans; no expense was spared in restoring the structure in the same Japanese manner and of the same Japanese materials. The artist who supervised its construction and who did most of the joinery himself was born in Hiroshima. Trained in the Japanese way, his tools of Japanese make and style were well suited to his art. The two most likely Japanese methods of roofing such a delicate building were copper and straw. But straw takes constant care, and since no one could be found to maintain a straw roof, copper was chosen.

Even with the Tea House rebuilt and given to the City of Seattle in 1981, there was still activity in the garden. We found that the *Machiai* (the little structure next to the Tea House) was facing the wrong direction and was too high. Its sole purpose is to be a quiet place of preparation for those who are about to take part in the tea ceremony. It should have faced east, as does the Tea House. This has been rectified.

And the *koi*! The study of these ornamental carp and their pleasures and problems has been interesting. Our present stock of *koi* is the gift of the University of Washington Department of Fisheries. The Department of Fisheries uses the pond in the Japanese Garden as a part

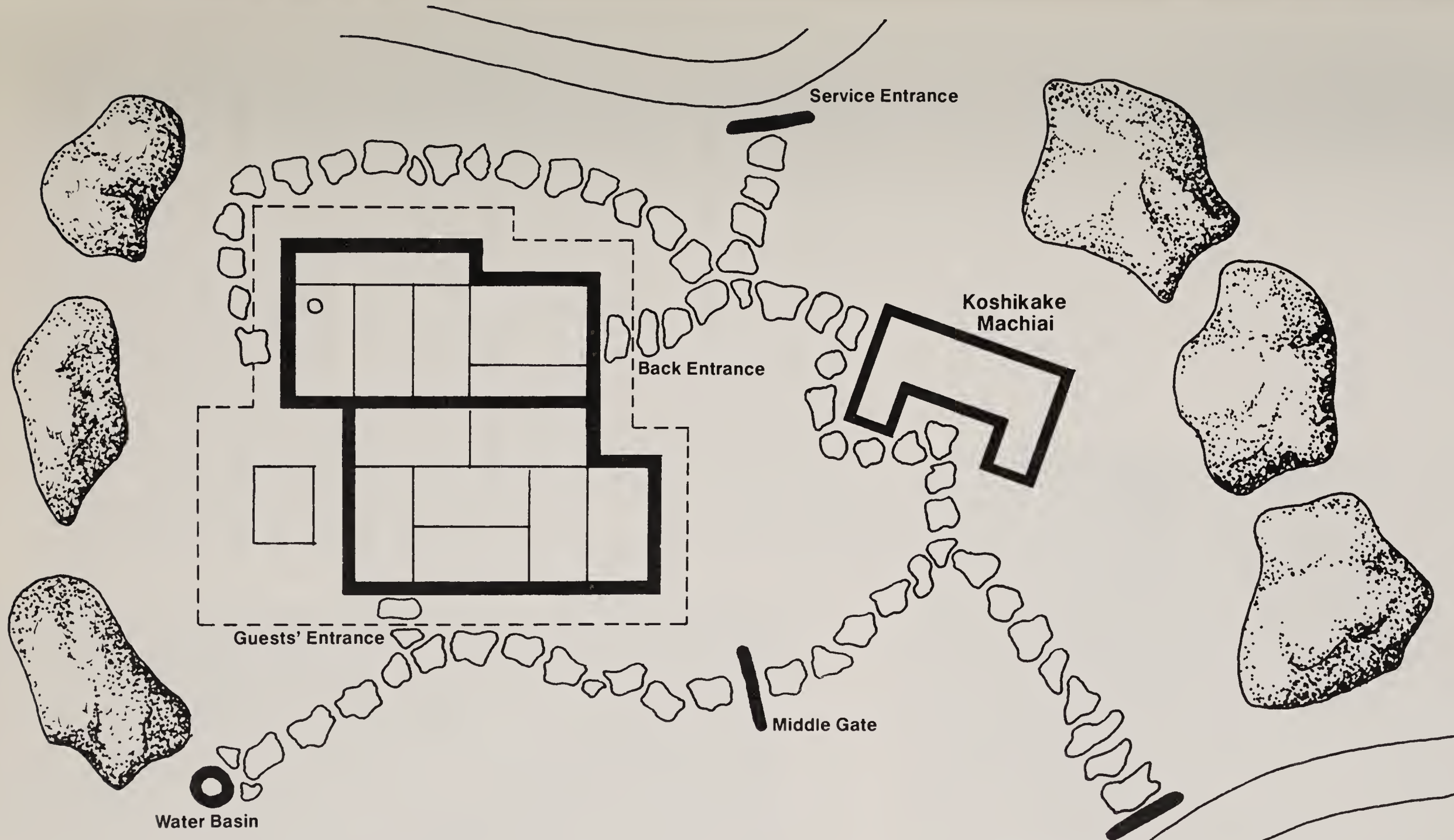
of its schooling, just as other departments at the University use the entire Arboretum for their studies. From the University we learned that our one-acre pond, with its two streams, can accommodate only 75 to 100 large *koi*. At present we have perhaps 35 to 40 small *koi*, having lost all of the larger ones in a disaster in February of 1983. At that time a sudden change in the acidity of the water caused suffocation of the larger fish. Although the University made every effort to save them, all were lost. Our stock was replenished from the University supply. One fact we have learned is that only *koi* large enough to be safe from birds can be used. One very large blue heron feeds regularly at the pond and there is a kingfisher who dines on the smaller fish. All of the *koi* we plant are longer than 11 inches. The kingfisher cannot cope with a fish that size and the heron can't swallow one.

In the pond are four kinds of water lilies, one of which is fairly rare. All four of them are fast growers and they must be thinned from time to time to keep them from taking over the entire pond. Under them the smaller fish are protected, while in the summer they serve as a retreat from the heat for most pond dwellers.

Soon after the garden opens on the first of March, we will see the results of several projects. An enlargement of the ticket booth is contemplated and work will be started, if not completed. In time there will be a larger ticket booth of better design located to the right side of the entrance, outside the wooden gate. Cultural advisors in Japan say that all ticket booths should be on the right side of an entrance to a Japanese Garden. The Seattle Parks Department will soon be erecting a new ten-foot slatted fence around the entire garden. This will partially deflect the noise from the boulevard, providing a big help for the tour guides on their rounds. It will also limit unlawful entrance.

As the garden has become better known, it has become an important stop for sight-seeing buses, and is in constant use by photographers. Attendance continues to grow. This past year thirteen couples were married there. As a stroll garden, it is a place to spend a quiet hour, to meditate if you will, but above all to enjoy the peace and tranquillity. It is a place for all to see. It is your garden. Come and enjoy it!

The northern end of the teahouse, framed by pines. The teahouse is the center for traditional ceremonies of *Chanoyu*, the "way of tea."
Photo: Susan K. Godfrey



松聲庵

The Japanese Teahouse
SHOSEI-AN
Arbor of the Murmuring Pines

Map: Courtesy Andrew Gorski after
Glenn T. Webb

The Japanese Tea Ceremony

*GLENN T. WEBB**

Background

The tea ceremony, known in Japanese as *chanoyu*, has its origin in China, where some one thousand years ago Zen Buddhist priests mixed powdered tea leaves with boiling water and began a tea-drinking ritual that was intended to bring them closer together in spirit. Like many other religions, Buddhism expects us to treat each other as brothers and sisters. It says, in fact, that all people and things are one in reality but that most of us are too self-centered to see that. We tend to shrink away from each other instead of drawing closer together. If we ever reach the point where we can see that all is one, if we truly realize the oneness of all things in ourselves, then Buddhism says we are Buddhas, Awakened Beings.

Zen temples are places where priests engage in long hours of quiet sitting and work each day. Meditation (which is what the word Zen means) is their principal way of calming the mind and looking beyond themselves to the core of all being. At some point they must have noticed that sitting together in meditation and drinking tea together quietly during moments of rest produced similar feelings. "Zen and tea taste the same" is how people began to express their experience. They came to believe, like some early Christians, that "Whoever will drink from my mouth will become as I am, and I myself will become that person, and the things that are hidden will be revealed to us."

Over the years the tea-drinking ritual has become very precise, with rules for every time and circumstance. In China the ceremony finally disappeared, but it was kept alive in Japanese Zen temples, where the 16th-century teamaster priest Sen Rikyu learned it and helped spread it throughout Japanese society, changing it to fit the needs of his own people as a ritual symbolic of truth itself. In addition to Rikyu's school of tea (which is divided into several branches) there are many other schools begun by other tea masters. All of them have the same goal: a ceremony that makes participants feel the oneness of all things.

Tea students must learn about the history of tea, and they participate in formal tea gatherings known as *chakai* and *chaji*. But most of their study is a matter of regular practice called *okeiko*, which involves going to a teacher each week and learning the procedures (*temae*) that students must know with their bodies as well as their minds. Everybody learns the same things—the same movements, the same words, the same utensils—but there is much to learn and it takes years before one can participate in the ceremony with the selfless awareness that Zen teachers call the "natural mind."

The garden around a teahouse and the space and people inside it constitute what is known as the Land of Dew (*roji*). That is the ideal world where nothing is separate and nothing is excluded. We live in a dualistic world that is as ephemeral as a dew drop, but while we are alive we can make the radiant wonder of dew drops a reality in ourselves. That is what the Japanese tea ceremony helps us do. In a limited space and time, using only a few objects, and through carefully controlled movements and words, we symbolize and participate briefly in an infinite space and time that encompasses all form, all movement, and all thought.

An Invitation to Tea, Description of a Chakai

The teahouse in the Washington Park Arboretum in Seattle is known as Shosei-an, the "Arbor of Murmuring Pines." This name was given by Sen Soshitsu, the present headmaster and descendant of Sen Rikyu in the Ura-Sen branch of the family. Students enrolled in the tea ceremony course offered at the University of Washington practice in the

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The Japanese teahouse, gem of the Japanese Garden, commands a view of reflecting ponds separated by a rock peninsula. This spring marked the third anniversary of the rebuilding of the teahouse. Architect Frank Sugita used traditional Japanese hand tools to rebuild the structure, utilizing some local cedar in the process. **Photo: Susan K. Godfrey**

teahouse almost every day. In addition, Seattle-area students and teachers of *chanoyu* who belong to the club known as Shosei-kai also practice in Shosei-an. Those "tea people" conduct demonstrations for the public and hold formal tea gatherings there, as well. Men and women who have studied the art of the tea ceremony can eventually hope to become tea masters. Mrs. Kodama and Mrs. Kubota are both tea masters in Seattle. In the following description of a tea ceremony, a gentleman is the host.

A tea gathering—whether it is a *chaji*, in which a meal is served, or a *chakai*, in which guests are served only sweets and thin tea—is designed to bring host and guests together in a single moment free from mundane, selfish concerns. This is accomplished through a symbolic ordering of setting and action. The following description of a *chakai* is specifically suited to a *chakai* held at Shosei-an (Arbor of the Murmuring Pines). The sequence presented here is very old, however, and would be appropriate for a *chakai* anywhere.

The host, with the guests in mind, cleans the teahouse inside and out, including the garden, which is freshly watered just before the guests arrive. This cleanliness is the first gift that the host offers the guests. After entering the garden, guests should gather at the waiting area just outside the teahouse. There they remove watches and jewelry and place these with coats and purses in a large basket that the assistant provides. The guests then receive a beverage suitable to the season.

Guests begin their formal participation in the *chakai* with a purification at the water basin, where they rinse their hands and mouths with

water. They then proceed one by one to the entrance of the teahouse, where they leave their shoes; once inside the teahouse the guests take seats on the east and south sides of the room and sit quietly until the last guest has entered and closed the door. At this point the host comes into the room for the first time. Everyone bows deeply to show humility and respect. The host greets the guests individually, beginning with the head guest. Then he leaves the room briefly and returns bringing a tray of sweets, which he sets in front of the head guest. The two of them bow. The host goes again to the preparation room and begins bringing in those utensils which he will use to make tea. The beginning of the *temae*, or procedure for making tea, is marked by a bow between the host and guests.

After all the utensils have been placed where they can be easily seen by the guests and efficiently used by the host, they are purified, indicating the host's willingness to serve his guests. The host then asks the principal guest to help himself to the sweets. Bowing to the person next to him, the head guest excuses himself for going first. He then places both hands on the cake tray and lifts it up slightly, bowing deeply in appreciation of those whose labor made the eating of the sweets possible. Using *kaishi* (a pad of handmade papers) as a plate, the guest helps himself to sweets and passes the tray to the next guest. As the tea is slightly bitter, the cake is eaten before the tea is served.

The host's assistant carries the tea to the guest and is thanked with a bow. Picking up the bowl with his right hand, the guest places it between himself and the second guest and bows, excusing himself for going ahead. Placing the bowl between his knees and the black line of the *tatami* (three- by six-foot rectangles of straw flooring with a border around each) he bows to the host and thanks him for making the tea. (A literal rendering of the traditional Japanese statement of thanks would be, "I now receive, with humility and deep gratitude, what you have prepared for me with your own hands.") Holding the bowl in the palm of his left hand and steadying it with his right he lifts the bowl, bowing his head at the same time, out of appreciation. He then turns the bowl clockwise, and drinks from the back of the bowl, showing humility. After drinking the tea the guest wipes the spot where his lips touched the bowl; the bowl is then turned counterclockwise to its original position, and placed outside the black line where the guest may respectfully examine (*haiken*) the bowl. Before returning the bowl to the assistant it is turned clockwise so that the front faces the server.

When other guests take sweets the same procedure as with the first guest is followed. The order for taking tea varies only in that the bowl is placed to the guest's right first, with a bow and the words "I will join you in drinking tea" before it is placed to the guest's left, where the guest excuses himself for going first.

During the tea, conversation first centers around the scroll, flowers, vase and incense container, which the host has selected to help establish the mood for the gathering. The main guest, who is generally the most experienced in tea, will ask the host about these utensils.

After all the guests have been served, the head guest asks to see the tea caddy and tea scoop. And after cleaning them and placing them to be viewed by the guests, the host removes the other utensils and waits in the adjoining room until they have been examined and returned. He enters the room again to answer questions about the caddy and scoop. Then he removes the utensils, taking them to the preparation-room door, where he turns and bows. The host and guests exchange thanks. The guests examine the scroll, flowers and vase, incense container and hearth before leaving the teahouse the way they came in.

As they leave the garden the guests may feel that nothing dramatic has happened. But people have participated in a quiet celebration of the simplest of life's wonders: boiling water, preparing and drinking tea . . . an action that can satisfy not only a physical thirst but a spiritual one as well.

A Note on the Photographs

Some of the photographs in the preceding two articles were specially processed to achieve a pointillistic effect. A "fast" film, ASA 400, was shot as if it were ASA 3200. The negative was then "pushed" to maximum development by means of special chemistry and printed with high contrast techniques. Middle ranges of gray drop out, leaving images composed of grains of light-sensitive material, similar to the impressionist painter's daubs of color on canvas. (Susan K. Godfrey is a Seattle area writer and photographer, who has studied art history in Kyoto.)

Book Collections from the Washington Park Arboretum

*LYN SAUTER**

Within the next few months there will be exciting changes concerning the book collections from the Arboretum. As the result of a generous gift from Pendleton Miller, the Elisabeth Carey Miller Horticultural Library has been established. This means that heretofore scattered volumes can be brought together under the management of a professional librarian, and that funding will be available for expansion of the collections during the next few years.

Before considering the future, however, it is useful to look at the history and the development of the library. The Washington Park Arboretum has always had a collection of books, probably started with a few reference texts for the staff. There is in the Arboretum greenhouse a well-used 1935 edition of L.H. Bailey's *Standard Cyclopedia of Horticulture*, which may have been one of the first acquisitions.

When Brian Mulligan became the Arboretum Director in 1947, he started to enlarge the book collection. He began systematically to gather book dealers' catalogs from the United States and Great Britain and made an effort to procure books dealing with subject areas that support the ongoing work of the Arboretum. The library therefore has many excellent volumes concerning rhododendrons, in addition to works about camellias and roses. Many other significant genera are represented either by scientific monographs or popular treatises.

The floras of the western United States and eastern Asia, especially China, are well represented, as are those of many nations around the world. The collection of Tasmanian and New Zealand floras reflects the special inter-

*Lyn Sauter, a graduate of the University of Washington School of Librarianship, is a library consultant who has served as librarian at the Arboretum for the past three years.

Some of the fascinating volumes in the Arboretum collection.

Photo: C. Antieau

Japanese iris from *The Japanese Iris,* a publication of the Japan Iris Society, edited by Kuribayashi Motojiro and Hirao Shuichi. Asahi Shimbun Publishing Co., Tokyo, Japan, 1971. Given in memory of Dr. David Metheny.

ests of Mr. Mulligan and Mr. Joseph A. Witt. Concerning woody plants, any standard encyclopedia and any work published by the Royal Horticultural Society has routinely and systematically been added to the library. While the bulk of the material deals with woody plants, there are biographies of famous plant explorers, histories of gardening, and specialty books on such diverse subjects as bonsai and rock gardening. The library also receives some 125 journals and newsletters, which have been put in storage after a year of exposure at the Arboretum Office.

Over the years the collection has grown, largely through contributions of money and books from both individuals and organizations. Mr. Witt has estimated that about 70% of the library has been developed from donations solicited by the Director and from other gifts. It would be impossible to mention all of the people who have generously donated to the library, but Unit 41 of the Arboretum Foundation must be mentioned as a consistent contributor.

In 1968 a building called the "Club House" burned down over a weekend, and arson was suspected. The Director, concerned about certain irreplaceable books in the Arboretum Office and library,[1] made arrangements with Robert Monroe, Head of Special Collections at Suzzallo Library on the University of Washington campus, for storage of some of the more valuable volumes. Fifteen years later these are still stored in the subbasement of Suzzallo Library. The illustrations in this article are examples of the fine books and journals that are currently in storage.

Nearly three years ago, at the invitation of the new Director, Dr. H. B. Tukey, Jr., I began the task of organizing and cataloging the books at the Arboretum. Because about 25% of the collection had already been classified using the Library of Congress system, and because this system is the one most widely used for academic and technical libraries, I have continued to use it. At about the same time the decision was made to utilize the capabilities of the Academic Computing Center for the Arboretum's

***Abies nobilis,* from Aylmer Bourke's *A Description of the Genus Pinus,* in three volumes; Weddell, London, 1828-37.**

[1]Monroe, Robert D. "Nature is Revealed, Art Concealed." *Arboretum Bulletin* 40(4): 14-23, Winter 1977.

***Franklinia,* from *William Bartram, Botanical and Zoological Drawings, 1756-1788,* edited by Joseph Ewan. Reproduced from the Fothergill Album in the British Museum by the American Philosophical Society, Philadelphia, 1968. A gift of the Bloedel Foundation.**

planting records and teaching needs, and the Library followed suit. A special program called BIBLIO is being used (preliminary printouts of the library catalog are in the Arboretum Office). An inventory of all of the books from the Arboretum stored in the subbasement of Suzzallo Library has also been completed.

There can be no doubt of the depth and range of the present collection, and it has served us well and in many ways for nearly forty years. However, efficient use of this fine collection has been hindered by its scattered locations and cramped quarters. With the advent of not one but two new buildings, the book collections will be able to better serve the diverse horticultural audiences of the Puget Sound region. Pendleton Miller's gift means that the Elisabeth C. Miller Horticultural Library will be able to house all of the collections including those now in storage. There will be pleasant areas for reading, study and research, and plenty of space and funding for expansion. For rare books, a special room with good security and environmental controls has been planned. The library will be staffed by a professional librarian as well as knowledgeable volunteers. This means that there will always be someone available to answer questions, and that the development of the library catalog will be continued and expanded.

When the new Visitor Center at the Arboretum is ready, a collection of reference materials will be developed. The Arboretum will have a printout of the complete library catalog, telephone access to reference information at the main collection, and eventually communication via computer terminals.

We hope that by means of these changes, the book collection which has been developing for the past several decades, and now has approximately 5000 volumes, can continue to grow and become a truly outstanding resource for Seattle and the Pacific Northwest.

A Library Advisory Committee has been appointed by Dr. Harold B. Tukey, Jr. Chaired by Dr. William Hatheway of the University faculty, the Committee is composed of representatives from those groups that will use the library: horticultural organizations and garden clubs, and University faculty and students. The Committee would welcome any suggestions or ideas. Correspondence should be directed to Dr. Hatheway at the University of Washington, GF-15, Seattle, WA 98195.

"Books and gardens. They make a happy combination appealing to both love of knowledge and love of beauty. The botanic garden and library have always been civilizing and peaceful oases in a turbulent and threatening world."

Ian McPhail,
Morton Arboretum Librarian
AABGA Bulletin, July 1981

Book Reviews

TREES IN THE LANDSCAPE, by Graham Stuart Thomas. Jonathan K. Ltd., London and the National Trust, London, 1983. 200 pages, 34 color plates and numerous black-and-white photographs, engravings and plans. Available through Merrimack Book Service, Topsfield, Massachusetts. Price: $22.95.

Most readers will be familiar with Graham Stuart Thomas as the author of several excellent books on horticulture and plants, or from his comprehensive work on the gardens of the National Trust. Each of his books on plants demonstrates his great knowledge of them and his understanding of their design values. His text on groundcovers, for example, is one of the best and most comprehensive treatments of these plants which are receiving more and more attention from gardeners wishing to create low-maintenance gardens. The subject matter of this book differs from his earlier ones in that it is primarily concerned with trees as elements in landscape design rather than with their horticultural characteristics. In the introduction, Mr. Thomas explains that "this is not a book about gardening nor is it a book simply about trees . . . neither is it about forestry, nor farming—it is about trees used in a sensitive or artistic way to create or recreate beautiful landscapes . . . This is a subject which has had little attention for about 180 years—since Humphrey Repton wrote his books." This is, in fact, a book about how to restore or design Reptonian landscapes, and it is, therefore, concerned with the trees and shrubs that were present in, or would fit aesthetically with, the landscapes of 18th-century England. The quote from William Robinson which prefaces the book sums up the purpose and content of this work:

> "This book is for the country house, or any place where there is woodland, or land to plant; its objective is to get people, after thought of the needs of a true garden, to think more of their woods from aesthetic and other points of view."

If the sole value of this book were to assist in planning or designing Reptonian landscapes for large parks or estates, it would have little relevance to Northwest readers; however, the book achieves much more than this and it is an inspiring testament to the understanding and use of trees in creating beautiful landscapes.

Chapter 1 gives a brief history, from prehistoric times to the 20th century, of the main trends in the creation of the English landscape we know today. It emphasizes the point that almost without exception, these landscapes are "cultural landscapes" formed by human interaction with the natural environment over many generations. These were created either unconsciously, as in the early forest clearing for agriculture, or consciously as in the great period of the English landscape school of the 18th century of which Repton was one of the principal exponents.

Chapters 2 and 3 give a more detailed description of Repton's principles of landscape design and how these may be applied to creating or restoring Reptonian landscapes. In the former chapter, "The Handling of the Landscape," the author describes how different landscape features—terrain, water and vegetation—may be designed and how constructed features such as fences and boundaries may be integrated with them. The latter chapter uses examples of the author's work while garden consultant to the National Trust to explain "The Art of Screening and Planting." This is one of the book's most effective chapters as the principles described are valid for present-day landscape design situations.

Chapter 4, "Practical Points in Regard to Planting," is one of the shortest in the book and covers, with a cursory description, the basic skills required by landscape designers such as the ability to perform visual and physical analyses of sites and their regional contexts. Also included in this chapter are comments on practical topics such as planting sizes, tree protection and plant composition which are either so cryptic or so specific to large English estate planting as to be of little practical assistance in other situations.

Chapter 5, "A List of Trees and Shrubs for Landscape Planting and for Temporary Screening," contains delightful descriptions of the design values of these plants or, as the author puts it, "what the plant may do for us in the landscape." Most of the plants covered are trees (36 genera) although a few larger shrubs

are included (seven genera). Many of these plants are frequently grown and all are hardy in the Northwest. The criterion used for including plants in this list is simply: would it be suitable for use in creating or restoring Reptonian landscapes? Thus, only plants that fit visually and aesthetically with the character of 18th-century English landscapes are described. This list is arranged alphabetically by generic name and comprises one-quarter of the entire book. Unfortunately, it divides the book awkwardly, and emphasizes the disjointed nature of the work as a whole.

Chapter 5 is followed by a short one on avenues which contains some of the book's best photographs of magnificent and venerable rows of trees, and some thoughts on the planning and design of tree-lined avenues.

Chapter 7, "Today's Afterthoughts," contains another list of trees, in this case of foreign deciduous species which the author believes blend well with formal English landscapes. Unfortunately, this list lacks the sensitive descriptions which make the earlier one such a pleasure to read.

Chapter 8, "The Landscape of the Garden," gives some general guidance on how the principles and ideas advanced throughout the book might be used by garden owners and designers today. Gardeners in the Northwest would do well to keep in mind the two concepts which Mr. Thomas considers most important: that of transition from house to garden to the landscape beyond, and that of insuring that plants used in design are horticulturally and aesthetically suitable for the location.

The following chapter contains short descriptions of "Some Parks and Landscapes in the National Trust." This is another chapter that breaks the flow of the text and would be more appropriate as an appendix or omitted altogether as it is unlikely that most readers of the book would wish to read through it. Its value as a reference to landscapes in Trust ownership is deficient because of its incompleteness and because the properties described are not necessarily open to members or the public.

The last chapter, "Trees Through Other Eyes and Minds," consists of literary and poetic quotations that illustrate how trees have been a source of inspiration and delight throughout history. The author closes with the hope that through careful planting programs, trees may continue to be so in the future.

Despite the excellent photographs and graceful style of the author, this book suffers from an organization that is disjointed and content that is fragmentary. Most chapters could stand independently as short but eloquent essays; however, they fail to substitute for their individual lack of depth a strong and coherent continuity. The interest of the subject matter of the book and the author's knowledge and love of this subject, particularly the plants, help to overcome these shortcomings and make this enjoyable and inspiring reading. Perhaps the most important message of this book to those of us living outside England's green and pleasant landscapes is that beautiful cultural landscapes do not happen by chance, they are the results of generations of thought plus careful attention to nature. One is left asking oneself, "Are we in the Northwest today creating landscapes that will be loved and cherished 200 years from now?"

IAIN ROBERTSON

THREE GARDENS, by Graham Stuart Thomas. Capability's Books, Deer Park, Wisconsin, 1983. Hardcover, 192 pages, 32 illustrations, 16 in color. Price $29.95.

Graham Thomas is a veteran author on plant subjects, a plantsman and plant collector of international renown, now serving as Garden Consultant to the National Trust in England, where he was Gardens Advisor for 15 years. He holds the English Royal National Rose Society's highest award, the Dean Hole Medal, for his services to the study of roses, and is a Vice-President of that Society.

His latest book, *Three Gardens,* is a fascinating account of his development as a plantsman, beginning with a short history of his father's garden at Cambridge where he planted his first garden as a child. There is a brief account of his learning days in the nursery business where he met and established enduring friendships with some of England's leading nurserymen, including Clarence Elliott, James Russell, Frank Knight, Oliver Slocock, Donald Waterer, Edward Balls and others. He then

describes the development of his own garden at Oak Cottage, and the smaller garden, twenty years later, at Briar Cottage, both near Woking, Surrey.

Included in the book is an Index to the plant material mentioned with descriptive information about each plant, its size, when to prune, and its habits. There are delightful before-and-after photographs, both in color and black and white, and numerous sketches and watercolors by the author of individual plants and their blossoms.

This is a book for the connoisseur and the novice alike. Mr. Thomas presents a cornucopia of plant choices, telling how he has used them with regard to their color, shape, size, scent and texture. In developing each garden he established a succession of bloom, paying special attention to soil and weather conditions. He has always been conscious of vistas and how the garden would look from the house. He talks about propagation and plant survival, problems of weed and insect control, problems of labeling and maintenance, and he shares with us his failures.

Here is an *upbeat book* for every gardener's library, with enough information to pique any collector's acquisitional abilities.

ANNE C. CLARK

SEASHORE LIFE OF THE NORTH PACIFIC COAST: *An Illustrated Guide to Northern California, Oregon, Washington and British Columbia,* by Eugene N. Kozloff. University of Washington Press, Seattle, 1983. 378 pages, 401 black and white photographs and line drawings, 299 color plates. Price $40 hardback, $19.95 paperback.

The author's knowledge and enthusiasm for the intricate life that depends upon the sea for its survival will be an inspiration to anyone even slightly curious about the seashore's animals and plants.

Seashore Life is not a book to be read in its entirety in one evening. Its field guide format is meant to be studied page by page. Readers are encouraged to associate certain animals and plants with a particular environment, different tide levels and other organisms found in the same habitat. From northern British Columbia south to Monterey Bay, California, there exists a rich variety of seashore life along rocky shores, inland bays, sandy beaches, marshes and mudflats.

The first chapter includes a brief introduction to the geology and geography of the Pacific Coast and its major bays. Tides are explained. Laws and customs governing the observation and collection of biological material are included along wth a plea for conservation. There are interesting comments on caring for marine animals and how the animals respond to changes in their environment.

In Chapter 2, "Some Instant Zoology and Botany," there is a general introduction to the names and characteristics of the phyla (main groups of animals) of invertebrates covered by this book. A synopsis of the phylum and class, together with line drawings, help the reader to recognize the general groups of sponges, cnidarians, comb jellies, flatworms, ribbon worms, segmented worms, peanut worms, molluscs, crustaceans, insects, spiders and their allies, moss animals, phoronids, lamp shells, arrow worms, spiny-skinned animals and sea squirts. Brief descriptions are given for blue-green, green, brown and red algae and the diatoms. Strictly microscopic organisms, internal parasites, groups not found intertidally and vertebrates represented in the sea by fishes, mammals and birds are omitted.

The study of seashore life does not necessarily require long driving distances. In the chapter titled "Floating Docks and Pilings" the author writes, "Any group of floating docks should have portions that offer an excellent introduction to the animal and plant life of the sea. As these docks are built to rise and fall with the tide, a matter of considerable importance in a region where tidal amplitude is large, study and collection of material may be made at almost any time. This is a distinct convenience especially during those times of the year when the only very low tides come well after dark. Moreover many of the animals and plants on floats are those normally found at lower levels of the intertidal zone or even subtidally. They can live close to the surface, yet not be in danger of exposure."

Squids, sea stars, sea cucumbers, jelly fishes, barnacles and a host of other strange forms select this habitat, including an arrow

worm, *Sagitta elegans*. The author mentions that "arrow worms are an important link in the food chain, for they eat small crustaceans and fish larvae, and serve in turn as food for other animals, especially fishes. *Sagitta elegans* is more or less cosmopolitan for identifying water masses. In this respect it has helped researchers attempting to predict runs of herring."

The natural history of rocky shores and intertidal zonation are dealt with in two chapters, "Rocky Shores of the Puget Sound Region" and "Rocky Shores of the Open Coast." In the vicinity of some of the most spectacular coastal scenery in the United States, fascinating animals and plants live on soils and rocks moistened by the spray from waves or rain. Others fasten themselves to rocks, hide in rock crevices, float in tide pools or cling to plants, each animal choosing its desired ecological niche between high tide line and low tide line. Some are restricted to specific intertidal zones while others intermingle among two or more zones.

"Sandy Beaches" will appeal to plant lovers. Brief descriptions of flowering plants entice the flower lover to plan a trip to the beach to coincide with spring and summer bloom.

The final chapter explores "Quiet Bays and Salt Marshes." "The heart cockle seems to prefer those portions of quiet bays in which the substratum consists of muddy fine sand. Beds of eelgrass growing on mud often support large populations. This cockle is versatile, however, and is sometimes plentiful in rather clean sand. Its vertical distribution is likewise extensive, for it is found from rather high levels in the intertidal region to deep water situations."

The last section of the book contains a glossary, suggestions for further reading and the index. The text is amply illustrated with color and black and white photographs and line drawings, and is cross-referenced.

Readers who are familiar with the author's *Seashore Life of Puget Sound, the Strait of Georgia and the San Juan Archipelago,* published in 1973, will find this new book a greatly expanded version of his work.

Seashore Life is a good reference companion to take with you on a beach hike.

Eugene N. Kozloff is professor of Zoology at the University of Washington. He is the author of two other books published by the University of Washington Press, *Plants and Animals of the Pacific Northwest* and *Keys to the Marine Invertebrates of Puget Sound, The San Juan Archipelago and Adjacent Regions.*

JOY SPURR

* * *

Hort AF-Fair 1984

The fourth Hort AF-Fair, sponsored by the Center for Urban Horticulture with the support of the Arboretum Foundation Unit Council, was held April 23, 1984. Approximately 220 students and teachers from nine area high schools participated.

The morning was spent in tours of the Washington Park Arboretum, led by our corps of guides. Following lunch, the group traveled to the Museum of History and Industry where they had the opportunity to explore future careers at 12 "stations." Representatives from local community colleges, universities and vocational programs leading to careers in horticulture, landscape architecture, and forestry were present to discuss their programs. Participants had an opportunity to meet with both teachers and students.

The Arboretum Foundation Unit Council furnished refreshments at the Museum for all the "famished" participants after their tour.

This is the fourth Hort AF-Fair, the program originally sponsored by the Arboretum Foundation. The success of this program will appear in a few years when these students make their career decisions.

JOHN WOTT

A Letter to the Editor

Editor's Note: The Editorial Board of the Arboretum Bulletin *regret that the reprinting of Karl Urban's "Requiem for a Haybaler" (*Arboretum Bulletin *46(3):25, Fall 1983) may have given a negative impression of the Native Plant Society of Oregon. This was not our intention, for the NPSO is engaged in a number of valuable projects, and plans to introduce conservation bills to the Oregon legislature in 1985. Following is a letter concerning the work of this group.*

The Native Plant Society of Oregon has always been and will continue to be a leader in the protection of Oregon's natural environment. The Society has amassed an impressive list of successes in the field of conservation.

The NPSO has established a strong statewide group which is prepared to sponsor and introduce an Oregon Endangered Species Act to the 1985 state Legislature.

Jean Siddall, Chairman of the NPSO Rare and Endangered Plant Committee, has produced through the Rare Plant Project one of the most complete inventories of rare and endangered plants in the United States. This committee continues to monitor populations and habitats.

Specific parcels of important Oregon habitat that have been saved from development in the past two years as a direct result of NPSO action are Wren Prairie near Corvallis, Willow Creek near Eugene, Waldo Lake in Lane County, Rainbow Falls in Lane County, and Rock Mesa in the Three Sisters Wilderness Area.

The NPSO is deeply committed to the preservation of a number of important habitat areas: Agate Desert near Medford, Eight-Dollar Mountain in the Siskiyous, the Waldo Country Wilderness Addition, the Columbia Gorge, and the Monroe Parcel in Benton County with a population of the rare and endangered species, *Sidalcea nelsoniana*.

At the local chapter level as well as at the state level NPSO members are fighting to halt commercial exploitation of such native species as the cobra lily (*Darlingtonia californica*), and the slipper orchid (*Calypso bulbosa*).

We have a successful scholarship program through which we endow an annual award to a student in an Oregon college or university who is doing research on some member of the Oregon native flora. In the past two years we have thus supported important graduate research on the genera *Mimulus, Arabis* and *Delphinium*.

In short, the Native Plant Society of Oregon is and has been a tireless champion of our Oregon flora.

DR. RHODA M. LOVE
Past President
Native Plant Society of Oregon

Ruth Hansen, charter member of NPSO, photographing and identifying plants at French Glen Grade, near Malheur, Oregon.

Photo: R. Love

Olmsted Parks of the West: The Future of a Tradition

1984 Annual Conference of Olmsted Parks

Seattle will be the site of the 1984 Conference of the National Association for Olmsted Parks, September 13 to 16. Everyone with an interest in preserving the Olmsted legacy of parks and landscapes is invited to attend.

Thomas A. Fawthrop, President of the Friends of Seattle's Olmsted Parks, notes that Seattle has recognized its tremendous legacy of Olmsted parks: "the renewal of local interest is matched by a lively interest across the country." Samples of original Olmsted work for a number of West Coast parks and gardens will be on display during the conference. The proposed federal Olmsted Historic Landscapes Act will be discussed and information will be available about the work of other Olmsted associations from around the country.

Cecil Andrus, former Secretary of Interior, will keynote the conference, speaking on the quality of life as the result of the 19th-century park movement. Other conference activities include workshops on vegetation management, public and residential landscape design, campus and exposition planning and playground and urban living concerns.

Further information may be obtained by calling Tamara Moats at the University of Washington, Conferences and Institutes (206) 543-5280.

* * *

Friends of Seattle's Olmsted Parks

In celebration of Seattle Parks Centennial, a new non-profit citizens' organization was formed at a charter meeting in October, 1983. It is called the FRIENDS OF SEATTLE'S OLMSTED PARKS, and its purpose is to preserve the influence on Seattle's park system of the landscape architect firm of the Olmsted Brothers of Brookline, Massachusetts. These brothers were successors to famed Frederick Law Olmsted, designer of Central Park in New York City and many other American parks, who is sometimes called the father of landscape architecture in America.

Seattle is fortunate to have one of the most extensively preserved systems of parks in the Olmsted tradition. Members of Friends of Seattle's Olmsted Parks have an opportunity to help preserve these parks and further their evolution. During the past year the elements of design and philosophy that are evidence of Olmsted tradition in Seattle parks have been studied. There have been lectures, park tours, presentations of pictures new and old, and listings of bibliographies. A national conference will take place from September 13 to 16, entitled "Olmsted Parks of the West: The Future of a Tradition," to be held at the University of Washington, site of the Alaska-Yukon Exposition of 1909, when the campus was laid out by the Olmsted Brothers firm. The conference will consist of lectures, workshops, tours and archival exhibits. There will be opportunity for individuals to explore parks and ideas about park uses. Speakers will include nationally prominent Olmsted scholars of the East and West coasts.

For information, call Nancy Becker, 323-6608; Tom Fawthrop, 625-4501; Mary Ann Schnaidt, 363-5061; Margaret Brookes, 523-7369.

MARY ANN SCHNAIDT

Search for Professor of Horticultural Plant Materials

The Center for Urban Horticulture at the University of Washington announces a 12-month tenure track position to provide leadership for research and public outreach in plant evaluation and introduction for urban environments, using the renowned Washington Park Arboretum. Direction of graduate students and staff is involved. Teaching will include undergraduate courses in plant materials and extension courses for lay audiences. Appointee will advise the Director on policy matters at the Arboretum, and should be willing to take an active role in a new department. Qualifications include a Ph.D. in horticulture, botany or related science, with a specialization in some aspect of plant materials, including horticultural taxonomy. Ability to communicate to a variety of people and groups is essential. Appointment at the Assistant Professor level is preferred, but consideration will be given to outstanding candidates at the Associate Professor level. The wealth of plant material in the Pacific Northwest makes this position especially challenging and professionally rewarding. Closing date is September 30, 1984; position is available immediately. Send resumes, transcripts, and names of five references to Dr. H.B. Tukey, Jr., Center for Urban Horticulture, University of Washington, GF-15, Seattle, WA 98195. (Phone: 206/543-8616)

Position Available

Coordinator for Community Garden Program

The Phinney Neighborhood Association seeks a Community Garden Program Coordinator. The Coordinator will be hired one-half time to continue the development of a community-based gardening program. Experience in community work, program coordination, greenhouse operations and gardening is desirable. Personal commitment to community work essential. Salary is $5.00/hour. Send a resume and cover letter to the Phinney Neighborhood Center, 6532 Phinney Ave. N., Seattle, WA 98103, by October 5, 1984.

Life Members of the Arboretum Foundation

We wish to express our sincere appreciation to the following members who have increased their commitment to the Arboretum Foundation to that of Life Members:

Dr. and Mrs. Landry M. Corkery
Mrs. E.M. Foisie
Mrs. Warren Leitch
Mr. and Mrs. Keith Patrick
Mrs. John Manfred Peterson
Sally S. Rice

Urban Horticulture Welcomes Dr. Barbara Smit-Spinks

Dr. Barbara Smit-Spinks, her husband Tom, and infant son Aaron are the newest members of the Urban Horticulture family. Dr. Smit-Spinks is Assistant Professor of Horticultural Physiology. She will advise graduate students, will develop a research program on the physiology of landscape plants growing in urban areas and will be responsible for developing the laboratories in the new Headquarters building of the Center. Dr. Smit-Spinks, a native of South Dakota, completed her undergraduate degree at South Dakota State University and received her Ph.D. degree from the University of Minnesota in 1983. Her husband also graduated from South Dakota State University and has an advanced degree in applied economics from the University of Minnesota.

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Numerical listing followed by one asterisk indicates photograph only; two asterisks indicate photograph and citation.

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Events of Interest

AUTUMN SALES: Don't miss the Arboretum Foundation Fall Bulb Sale the first week of October, or the NOHS Fall Plant Sale the last week of September.

ARBORETUM FOUNDATION FALL BULB SALE will be held October 3 and 4 in the Arboretum Office Parking Lot. Call (206) 325-4510 for further details.

FOURTH THURSDAY WEEDERS' DAYS: August 23, September 27 and October 25 at 10:00 AM.Meet at the Arboretum Office.

NOHS LECTURE SERIES; LESSER KNOWN GARDENS OF BRITAIN by Peter Coats. September 26, 10:30 AM, Museum of History and Industry. Admission $7.50; $2.50 for students.

WHAT IS A FLOWER? with Dr. Barbara Smit-Spinks and Dr. Harold B. Tukey, Jr., at the Center for Urban Horticulture, University of Washington, Tuesday, November 13, 1984.

THE TEA CEREMONY, in the Tea House of the Japanese Garden, at 2:00 PM and 3:00 PM, the first and third Sundays of the month through November.

* * *

Classes of Interest

Urban Horticulture— Arboretum

These classes are open to the public. To register and for further information, call (206) 545-8033.

HUNT'S POINT/MEDINA GARDEN TOUR, Instructor: Glen Hunt. An evening lecture starts this tour of gardens in Hunt's Point and Medina. Emphasis on arranging outdoor spaces for people and enhancing them with plants. Thursday, September 20, 7-9 PM and Saturday, September 22, 10 AM - 2:30 PM. $22.

BEGINNING BONSAI, Instructor: Leo Cunningham. Learn how to create your own bonsai. Introductory lecture and demonstration followed by five workshop sessions. Saturdays, September 22, 29, October 6, 13, 20, and 27. $35.

FALL LAWN CARE, Instructor: Walt Bubelis. This short course on fall lawn care needs will include watering, fertilization, new lawn preparation, and winterization for mowers and sprinklers. Lecture and field session. Saturday, September 22, 9 AM - 12 NOON. $8.

GARDEN MAINTENANCE FOR FALL, Instructor: George Pinyuh. Come to gather some timely tips that will improve your garden and give you a head start for next spring. Tuesday, September 25, 6:30 to 9 PM. $8.

JAPANESE PRUNING, Instructor: David Barnhill. Learn about the aesthetics and techniques of Japanese pruning for landscape plants. Includes slide lecture, outdoor demonstrations, and a walk through the Japanese Garden. Wednesday, September 26, 7 - 9 PM and Saturdays, September 29 and October 6, 8 - 10 AM. $25.

PLANTING FOR AUTUMN COLOR, Instructor: Jan Pirzio-Biroli. The use of trees and shrubs with outstanding color of fruit and foliage will be covered in this lecture and Arboretum tour. Thursday, October 4, 7 - 9 PM and Saturday, October 6, 12:30 - 3:30 PM. $13.

JAPANESE LANDSCAPE DESIGN, Instructor: David Barnhill. An introduction to the philosophy, aesthetics, and planning of a Japanese garden. Includes lecture and a walk through the Japanese Garden. Tuesday, October 9 and Thursday, October 11, 7 - 9 PM, and Saturday, October 13, 8 - 10 AM. $20.

COLOR TOUR: MOUNTAIN SCARLETS TO DESERT PASTELS, Tour leader: Jan Pirzio-Biroli. Contrast the mountain and desert colors via Stevens Pass, Eastern Washington, returning by Snoqualmie Pass. Wednesday, October 10, 8 AM - 6 PM. $35.

APPLE SELECTION: TREES AND FRUIT, Instructor: Helen Zuelow. This three part class includes a discussion of apple trees for Western Washington, an orchard tour, and apple variety tasting. Thursday, October 18, 7 - 9 PM, Saturday, October 20, and Wednesday, October 24, 7 - 9 PM. $27.50.

OCTOBER IS FOR BULBS, Instructor: Jeanne Gardiner. Jeanne Gardiner, a leading bulb expert in our area, will show you how to get ready for bright spring color with this slide lecture and demonstration on the culture and care of bulbs. Wednesday, October 24, 10 AM - noon. $6.

Classes continued on next page

More Classes of Interest

INTRODUCTION TO GROWING CACTUS AND OTHER SUCCULENTS, Instructor: Paul Beeman. Learn about the many types of cactus and other succulents you can grow at home. Lecture includes the cultural and flowering requirements. Tuesday, November 6 and Thursday, November 8, 7 - 9 PM. $12.

HOLIDAY GREENERY WORKSHOP, Instructor: Sharon Thompson Buck. Make holiday decorations with materials from your garden. Lecture-demonstration on table arrangements and Yule log. Materials provided to make your own wreath. December 8, 8 - 11:30 AM. $15.

ADVANCED GREENERY WORKSHOP, Instructor: Sharon Thompson Buck. Advanced workshop is for those who have taken the basic workshop. Will cover mistletoe kissing balls, holiday centerpieces, and other indoor decorations. December 8, 12:30 - 4 PM. $15.

GRAPES AND WINE FROM WESTERN WASHINGTON, Instructor: Gerard Bentryn. Learn about the best types of grapes to grow in Western Washington and some tips on how to use them in homemade wines. Course begins with an evening lecture followed by a Saturday trip to Bainbridge Island Vineyard and Winery. Thursday, November 15, 7 - 9 PM, and Saturday, November 17. $15.

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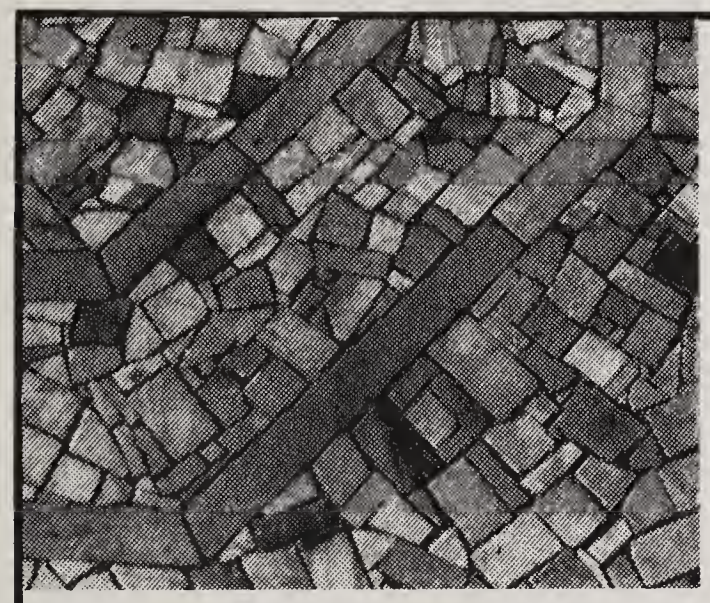

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***Calycanthus occidentalis*, spice bush, with fragrant foliage and summer bloom.**

Photo: Jan Pirzio-Biroli

VISIT YOUR ARBORETUM IN LATE SUMMER

A walk through woods—
a lunch
amid the blooms and bees.

EXPLORER'S WALKS take place throughout the year, on the fourth Wednesday of the month. Meet at 10 AM at the Arboretum Office on August 22, September 26, October 24 and November 28.

SUNDAYS AT ONE will be offered each Sunday through the end of October, for summer bloom and fall color. Meet from 1 to 2:30 PM at the Arboretum Office. Wear appropriate footgear even in warm weather.